

organic life; but with a working hypothesis of this kind we at least advance a step or two further.

Just as little as we can explain the magneto-electric phenomena by means of mechanics alone, so do we find that these two no longer suffice for the organic phenomena; on the contrary, in their place also we must now assume the existence of a special form of energy, upon which, from its most conspicuous quality, I bestow the designation "sexuality." In this force there is, of course, just as little of the supernatural as in the other forces of nature. And that it is likewise already capable of being expressed in figures and is subject to mathematical treatment I shall shortly show elsewhere in a paper on the mathematical equations of the partheno-ova and their fertilization.

X.—*Natural History Notes from the R.I.M.S. Ship 'Investigator,' Capt. T. H. Heming, R.N., commanding.*—Series III., No. 13. *Two new Barnacles dredged in 1905-6.*
By N. ANNANDALE, D.Sc., Indian Museum, Calcutta.

Genus DICHELASPIS.

Dichelaspis transversa, sp. n. (Figs. 1, 1 a.)

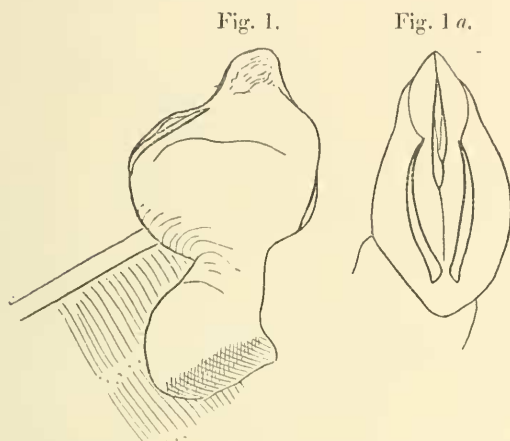
Capitulum bullate, with the orifice on the upper surface and almost parallel to the base, with a well-defined lobular projection on each side of the orifice at its upper extremity, with three complete valves and traces of a second pair. *Scuta* linear, sinuous or curved, short, uneleft; *carina* narrow, very short, almost straight, somewhat variable, without either a disk or a fork at its base; *terga* totally uncalcified, represented by a pair of amorphous chitinous patches. *Peduncle* stout, constricted above, as long as or longer than the capitulum.

Mandible with five teeth; the four innermost short, simple, subequal; the outermost large, sharply pointed, widely separated from the others.

Penis longer than body, very stout, constricted distally and ending in a bunch of fine, curved, filiform processes; the whole organ densely covered with rings of minute, laterally flattened, triangular, chitinous spines, which have a flattened depressed base; a few larger chitinous structures with a subconical base and a recurved distal point scattered, with some short bristles, near the distal extremity. Anal ap-

pendages moderate, rounded distally, with a complete fringe of long stout hairs on the posterior and distal margins.

| | | |
|---------------------------|-----|--|
| Length of capitulum | mm, | |
| Breadth | 4 | |
| Length of peduncle..... | 3.5 | |
| | 7 | |



Locality. Northern end of Persian Gulf, shallow water. Numerous specimens on the gills of *Neptunus pelagicus*, together with specimens of *D. Vaillanti*, Gruvel *, which was described from a specimen of the same crab from Suez.

D. transversa is allied, as regards its external characters, to C. W. Aurivillius's *D. bullata* †, from which the presence of a carina at once distinguishes it. The latter species was described from the gills of a Javan Palinurid.

Dichelaspis bathynomi, sp. n. (Fig. 2.)

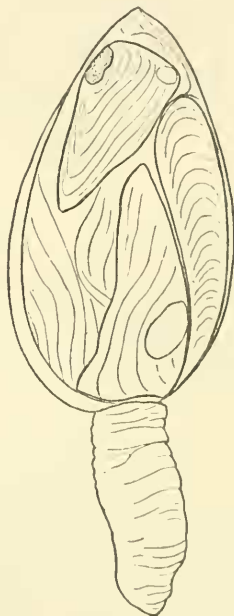
Capitulum amygdaloid, compressed, with seven valves. *Carina* narrow, feebly expanded below, fully calcified at the base only; the basal arm short, almost in contact with the scutum distally. *Terga* large, fully calcified round the umbo, subtriangular, but rounded above; the occludent margin much shorter than the other two, the scutal margin straight or slightly sinuous. *Scuta* large, completely divided; the occludent section horn-shaped, pointed below, truncated

* Nouv. Archives Mus. Paris, (4) vi. (1902).

† Kongl. Svenska Vetensk.-Akad. Handl. xxvi. no. 7 (1894).

or rounded and in contact with the tergum above; the inner section irregularly triangular, broad at the base, pointed above, shorter than the outer section; the whole plate feebly calcified except round the umbo. *Peduncle* stout, almost cylindrical, annulated, shorter than the capitulum.

Fig. 2.



Penis as long as the body, slender, tapering, minutely annulated, with a short process on the upper surface at the distal extremity. *Anal appendages* nearly reaching the junction of the rami of the sixth cirri above, rather slender, with a fringe of very long hairs on the upper third of the posterior margin and at the tip.

Mandible with five teeth; the two innermost close together, small; the next two subequal, moderate; the outermost large, sharply pointed, not so widely separated from the others as in some species.

| | mm. |
|---------------------------|-----|
| Length of capitulum | 8 |
| Breadth | 4 |
| Length of peduncle..... | 4 |

Locality. Off the south-east coast of Arabia; 555 fathoms. Several specimens on the pleopods of *Bathynomus giganteus*.

This species appears to be related to *D. Hoeki*, Stebbing*, which was found on the gills of an American Palinurid.

XI.—*Description of a new Species of Parnassius.*

By F. MOORE, D.Sc., F.Z.S.

Parnassius Balucha.

Male.—Upperside milk-white. *Fore wing* with the costal border basally irrorated with black scales, the basal area densely black-scaled; a dense black bar across middle of the cell, but not touching the median vein; a shorter black bar at upper end of the discocellular vein, followed close beyond by an irregular-shaped, longer, outwardly oblique bar, enclosing three crimson spots, this latter bar extending from the first subcostal branch to upper median branch, and its inner edge very slenderly joined to the discocellular bar by black scales along the intervening veinlets; the outer margin of the wing is bordered by a black-scaled decreasing band, which is broad anteriorly and slender posteriorly, and is traversed by a series of seven white rounded spots—one each placed between the veins, the upper one being more inwardly positioned towards the costa, the outer marginal edge of the black band formed of diagonally-quadrato portions, each of the latter including its contiguous cilia. *Hind wing* with the base and upper part of the abdominal margin black-scaled; a small black-scaled crimson-centred spot on middle of anterior margin and a similar discal spot beyond the cell; a slightly defined blackish-scaled submarginal series of five slender incurved lunules, the lower three being less defined, and each joined at the veins to a similar black-scaled marginal line, which is posteriorly broken between the veins, and at the vein-tips include their contiguous cilia. Thorax and abdomen blackish, clothed with long white hairs; front of head and palpi clothed with grey hairs; antennæ greyish, the tip white.

Underside white. *Fore wing* with the three black bars as on the upperside, but broader, the blackish-scaled outer band, as on upperside, indistinctly defined, its most distinct portion being that between the upper and middle median veinlets.

* Ann. & Mag. Nat. Hist. (6) xv. p. 18 (1895).